

ABSTRACT OF THE DISCLOSURE**METHOD AND APPARATUS FOR MAINTAINING PERFORMANCE
MONITORING STRUCTURES IN A PAGE TABLE FOR USE IN
MONITORING PERFORMANCE OF A COMPUTER PROGRAM**

A method and apparatus in a data processing system for measuring events associated with the execution of instructions are provided. Instructions are received at a processor in the data processing system. If a selected indicator is associated with the instruction, counting of each event associated with the execution of the instruction is enabled. In some embodiments, the performance indicators, counters, thresholds, and other performance monitoring structures may be stored in a page table that is used to translate virtual addresses into physical storage addresses. A standard page table is augmented with additional fields for storing the performance monitoring structures. These structures may be set by the performance monitoring application and may be queried and modified as events occur that require access to physical storage.